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| 09/216,036      | 12/18/1998  | RICHARD H. WARREN    | 97-904CIP1          | 1325             |

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LEONARD C. SUCHYTA  
GTE SERVICE CORPORATION  
600 HIDDEN RIDGE, HQE03G13  
IRVING, TX 75038

EXAMINER

MEHRPOUR, NAGHMEH

| ART UNIT | PAPER NUMBER |
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14

Please find below and/or attached an Office communication concerning this application or proceeding.

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**EXAMINER'S ANSWER**



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**MAILED**

**MAR 11 2002**

**Technology Center 2600**

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Paper No. 14

Application Number: 09/216,036

Filing Date: 12/18/1998

Appellant(s): Richard WARREN

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Floyed E. Anderson  
For Appellant

Art Unit:

This is in response to appellant's brief on appeal filed 12/11/01.

**(1) *Real Party in Interest***

A statement identifying the real party in interest is contained in the brief.

**(2) *Related Appeals and Interferences***

A statement identifying the related appeals and interferences which will directly affect or be directly affected by or have a bearing on the decision in the pending appeal is contained in the brief.

**(3) *Status of Claims***

The statement of the status of the claims contained in the brief is correct. However upon further review, claims 3-4, 6 and 8 have been allowed in view of appellant's remarks filed 12/11/02.

**(4) *Status of Amendments After Final***

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) *Summary of Invention***

The summary of invention contained in the brief is correct.

**(6) *Issues***

The appellant's statement of the issues in the brief is correct.

**(7) *Grouping of Claims***

Art Unit:

Appellant's brief includes a statement that claims 1, 2, 5 are a first group, Claims 3,4,6,8 are a second group

**(8) *Claims Appealed***

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(9) *Prior Art of Record***

The following is a listing of the prior art of record relied upon in the rejection of claims under appeal.

|           |              |        |
|-----------|--------------|--------|
| 5,940,753 | Mallinckrodt | 8-1999 |
| 3,836,969 | Bond et al.  | 9-1974 |

**(10) *Grounds of Rejection***

The following ground(s) of rejection are applicable to the appealed claims:

**Beginning of prior Office Action (Paper 10)**

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

**Claims 1-2, 5, are rejected under 35 U.S.C. 103(a) as being unpatentable over**

Mallinckrodt

(US Patent Number 5,940,753) in view of Bond et al. (US Patent Number 3,836,969).

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Regarding **Claims 1, 5**, Mallinckrodt teaches a satellite communication system wherein, a first satellite antenna 22 for receiving the return communication signal from the one of the plurality of satellites (See figure 1 b, antenna on top of the car 22 is a small diameter and transmits wide beam signals to both satellites (62) and receive from one of the satellites 62, (Column 8 lines 44-53), means for generating a return communication signal from each of the plurality of satellites, See figure 1 b, return signal is shown generates from satellites (62(20)), and a second large satellite antenna 42 for receiving the return communication signal from only one of the plurality of satellites (62(20)), (See figure 1b, the antenna 42 has a large diameter generate a narrow beam signal), Mallinckrodt fails to teach that a satellite antenna repositioning system for repositioning the second antenna when the sun transits within the beamwidth of the second antenna, a receiver for receiving communication signals at one of the first and second antenna, the receiver including an antenna switch selector for selectively activating second antenna during periods when the sun transits within a beamwidth of the first antenna. However Bond teaches a satellite antenna repositioning system for repositioning the second antenna when the sun transits within the beamwidth of the second antenna (See figures 5a, 7, 9, Column 5 lines 23-50, Column 9 lines 3554). Bond also teaches a receiver for receiving communication signals at one of the first and second antennas, the receiver including an antenna switch selector for selectively activating second antenna during periods when the sun transits within a beamwidth of the first antenna (Column I I lines 7-14). Therefore, it would have been obvious to the ordinary skill in the art at

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the time the invention was made to provide the above teaching of Bond to Mallinckrodt, in order for satellite system to avoid sun transit outage.

Regarding **Claim 2**, Mallinckrodt teaches that a diameter of the second 42 and third 46 satellite antenna is greater than a diameter of the first satellite antenna 22 (See figure 1 b, numerals 42, 46, 22).

**End of prior Office Action (Paper 10)**

***Allowable Subject Matter***

**Claims 3-4, 6, 8**, are allowed.

The following is an examiner's statement of reasons for allowance:

Regarding **Claim 3**, the record of prior art fails to teach a point-to-multipoint satellite communication system as specifically mentioned on Claim 3.

Regarding **Claim 6**, the record of prior art fails to teach a method of performing satellite communication in a point-to-multipoint communication system as specifically mentioned on Claim 6.

Regarding **Claim 8**, the record of prior art fails to teach an earth station for use in a point-to-multipoint communication system including a small satellite and plurality of adjacent geostationary satellite, the earth station as specifically mentioned on Claim 8.

***11) Response to Argument***

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Regarding Claims 1, 2, 5, Appellant argues that neither Mallinckrodt nor Bond teaches a satellite antenna repositioning system for repositioning the second antenna as recited in the claims, and further still, there is no motivation to combine Mallinckrodt and Bond. Appellant further mentioned that Bond teaches that antennas 36 and 40 may be provided with a means for reorienting the antenna. Bond teaches a system including two earth stations receiving station for selectively receiving signals from one of the satellites, and switching means for transferring the selection means to the other satellite to avoid solar outages (column 11 lines 7-11).

In response to applicant's argument that there is no suggestion to combine the references, the examiner recognizes that obviousness can only be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988) and *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). In this case, Mallinckrodt teaches a satellite communication system wherein, a first satellite antenna 22 for receiving the return communication signal from the one of the plurality of satellites See figure 1 b, antenna on top of the car 22 is a small diameter and transmits wide beam signals to both satellites (62) and receive from one of the satellites 62, (Column 8 lines 44-53), means for generating a return communication signal from each of the plurality of satellites, See figure 1 b, return signal is shown generates from satellites (62(20)), and

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a second large satellite antenna 42 for receiving the return communication signal from only one of the plurality of satellites (62(20)), (See figure 1b, the antenna 42 has a large diameter generate a narrow beam signal), Mallinckrodt fails to teach that a satellite antenna repositioning system for repositioning the second antenna when the sun transits within the beamwidth of the second antenna, a receiver for receiving communication signals at one of the first and second antenna, the receiver including an antenna switch selector for selectively activating second antenna during periods when the sun transits within a beamwidth of the first antenna. However Bond teaches a satellite antenna repositioning system for repositioning the second antenna when the sun transits within the beamwidth of the second antenna (See figures 5a, 7, 9, Column 5 lines 23-50, Column 9 lines 35-54). Bond also teaches a receiver for receiving communication signals at one of the first and second antennas, the receiver including an antenna switch selector for selectively activating second antenna during periods when the sun transits within a beamwidth of the first antenna (Column 11 lines 7-14). Therefore, it would have been obvious to the ordinary skill in the art at the time the invention was made to provide the above teaching of Bond to Mallinckrodt, in order for satellite system to avoid sun transit outage.

As to the argument that neither reference teaches a satellite antenna repositioning system, the Bond system includes two earth stations, one of the station serving as a signal transmission station, and the other one serving as receiving station, the receiving station selectively receiving signals from one of the satellites, and switching, or repositioning, the antenna for transferring the communication link to the other satellite to avoid solar outages.



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As to the argument that there is no motivation to combine the references, since Mallinckrodt teaches satellite communication system with satellite antennas for receiving return signals from only one of a plurality of satellites (See figure 1a), and since bond disclose the similar environment of a satellite antenna receiving signal from one of a plurality of satellites, then it would have been obvious to one of ordinary skill in the art to apply the antenna "repositioning" technique of Bond to the system of Mallinckrodt for the simply purpose insuring that the return communication signal is properly sent during times of interference caused by solar energy.

Respectfully submitted,

March 8, 2002

Appeal Conference held on: 03/05/02

Appeal conferee:

Ed Urban

SPE A/U 2685

Appeal conferee:

Lester Kincaid

Primary Examiner A/U 2685


Appeal Conferee

Naghmeh Mehrpour

Examiner A/U 2685

March 05, 2002

  
**EDWARD F. URBAN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2600**

  
3-8-02  
**LESTER G. KINCAID**  
**PRIMARY EXAMINER**